

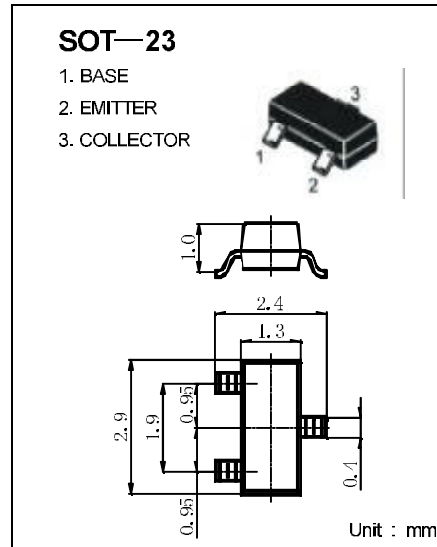


**DONGGUAN NANJING ELECTRONICS LTD.,**  
**SOT-23 Plastic-Encapsulate Transistors**

**C945LT1** TRANSISTOR ( NPN )

**FEATURES**

- Power dissipation  
 $P_{CM} : 0.2 \text{ W (Tamb=25}^\circ\text{C)}$
- Collector current  
 $I_{CM} : 0.15 \text{ A}$
- Collector-base voltage  
 $V_{(BR)CBO} : 60 \text{ V}$
- Operating and storage junction temperature range  
 $T_J, T_{stg} : -55^\circ\text{C to } +150$



**ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 1\text{mA}, I_E = 0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 0.1\text{mA}, I_B = 0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)EBO}$	$I_C = 100 \mu\text{A}, I_B = 0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = 60 \text{ V}, I_E = 0$			0.1	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CB} = 45 \text{ V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5 \text{ V}, I_C = 0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE} = 6 \text{ V}, I_C = 1 \text{ mA}$	130		400	
	$h_{FE(2)}$	$V_{CE} = 6 \text{ V}, I_C = 0.1 \text{ mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$			1	V
Base-emitter voltage	$V_{BEF}$	$I_E = 310 \text{ mA}$			1.4	V
Transition frequency	$f_T$	$V_{CE} = 6 \text{ V}, I_C = 10 \text{ mA}$ $f = 30 \text{ MHz}$	150			MHz

**CLASSIFICATION OF  $h_{FE(1)}$**

Rank	L	H
Range	130-200	200-400
MARKING	CR	